REMARKS

Applicant files this Amendment with its Request for Continued Examination. Applicant had previously filed a Response to the Final Office Action but those claim amendments were not entered by the Examiner. This Amendment addresses the issues raised by the Examiner in both the Final Office Action and the Advisory Action mailed March 16, 2007.

Claims 1, 6 and 17 stand objected to for certain informalities. Applicant has amended claims 1, 6 and 17 to correct the informalities. Reconsideration and withdrawal of the objection to claims 1, 6 and 17 is respectfully requested.

Current Amendments

The Examiner declined to enter the amendments that were presented by Applicant in its Response to the Final Office Action dated 26 January 2007. Applicant proposed amending claim 1 to include the negative limitation "non-aqueous" and to include the term "liquid" rubber. In the Advisory Action, the Examiner stated that there was no support in the Specification for these proposed amendments.

Applicant first addresses the issue of the negative limitation "non-aqueous." An inventor may excise the prior art from the claim and still satisfy the written description requirement of section 112, first paragraph. *In re Johnson*, 558 F.2d 1008, 194 U.S.P.Q. 187 (C.C.P.A. 1977). Applicant asserts that it would be an absurdity for the law to require, and an impossible task to accomplish, that an applicant must expressly disclose everything that is not in her compositions or every step that is not included in her methods. It is for the inventor to decide what bounds of protection she will seek and it is perfectly legitimate for an inventor to simply claim less than the full scope of her disclosure.

This concept is supported by the Board of Patent Appeals and Interferences. In *Ex parte Parks*, 30 USPQ2d 1234 (Bd. Pat. App. & Inter. 1993), the examiner rejected claims that were amended to include the limitation "in the absence of catalyst", contending that the rejected

claims lacked adequate descriptive support because there was no literal basis for the phrase "in the absence of catalyst" in the specification.

The Board stated:

> In rejecting a claim under the first paragraph of 35 U.S.C. 112 for lack of adequate descriptive support, it is incumbent upon the examiner to establish that the originally filed disclosure would not have reasonably conveyed to one having ordinary skill in the art that an appellant had possession of the now claimed subject matter. Adequate description under the first paragraph of 35 U.S.C. 112 does not require literal support for the claimed invention. *Rather it is sufficient if the originally filed disclosure would have conveyed to one having ordinary skill in the art that an appellant had possession of the concept of what is claimed.*
>
> *Id.* at 1235-36, emphasis added.

Applicant respectfully asserts that the Specification conveys to one having ordinary skill in the art that the Applicant had possession of the concept that the claimed puncture sealing composition was of a non-aqueous composition. There is no mention of water or aqueous emulsions anywhere in the specification or in the claims. Indeed, the specification cites in great detail the elastomers that may be used, the curing systems that may be used, the tackifiers that may be used, and additional materials that may be added such as pigments, carbon black, particulate inorganic fillers, extenders, stabilizers and antioxidants. There is an Example provided that includes use of the puncture sealant composition, made as described in the specification, *i.e.,* without the use of water.

Therefore, the specification clearly discloses to one having ordinary skill in the art that Applicant did have possession of the now claimed subject matter; i.e., that the composition was non-aqueous.

For the second issue, whether the term "liquid" rubber has support in the specification, Applicant respectfully directs the Examiner to page 3 of the specification, lines 7-15, wherein the specification discloses that examples of the low molecular weight elastomer are preferably of the

"liquid" rubber type, examples of which include liquid cis-polyisoprene, liquid polybutadiene, liquid polybutene, liquid EPDM and so forth as disclosed therein.

Applicant made the amendment to claim 1 to clarify the terms. The originally filed claim1 claimed a low molecular weight elastomer and then stated "the low molecular weight elastomer being a liquid rubber . . . ." (*See*, original claim 1). Applicant has merely amended claim 1 so that there are not two terms that are used interchangeably, i.e., low molecular weight elastomer and liquid rubber. Therefore, wherever the original claim used "low molecular weight elastomer," Applicant has deleted that term and replaced it with the term "liquid rubber." This also allowed the deletion within the claim that the low molecular weight elastomer is a liquid rubber.

Rejections under 35 U.S.C. § 112

Claims 1-6, 11 and 13-17 stand rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

Specifically claim 1 is rejected for claiming an amount of "50%" for both (A) and (B). Applicant has amended claim 1 to reflect that the amount of (A) is between 10% and less than 50% and the amount of (B) is between greater than 50% and 90%. The Examiner has stated that there is support for the amended recitals (Final Office Action, pg. 4, lines 1-2).

Furthermore, claim 1 is rejected for claiming an amount of ground rubber of between greater than 0 and 5 percent by weight. The Examiner states that the specification only includes support for "up to 5 percent, which includes 0 percent." (Final Office Action, p. 4, lines 1-5).

It is not necessary for the claimed subject matter to be described literally or "*in ipsis verbis*" in order for the specification to satisfy the description requirement. *In re Lukach*, 442 F.2d 967, 969, 169 U.S.P.Q. 795,796 (C.C.P.A. 1971). Furthermore, it is sufficient that the specification convey clearly to those skilled in the art the information that the applicant has invented the specific subject matter later claimed. *In re Wertheim*, 541 F.2d 257, 262, 191 U.S.P.Q. 90, 96 (C.C.P.A. 1976). The PTO always has the burden of demonstrating that the

applicant has failed to comply with the written description requirement. *In re Edwards*, 568 F.2d 1349, 1356, 196 U.S.P.Q. 465, 469 (C.C.P.A. 1978). As the MPEP states:

> With respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure. MPEP § 2163.05 (I).

Applicant respectfully asserts that the statement in the specification that the amount of crumb rubber may be up to 5%, coupled with the example and statements in the specification of the type of crumb rubber to be used and the amount of crumb rubber used in the example, indicating an amount greater than 0, is information sufficient to clearly convey to those skilled in the art that Applicant had invented the specific subject matter as claimed, *i.e.*, an amount of ground rubber of from greater than 0 to 5%.

Additionally, regarding claim 15, the Examiner stated that the specification lacked support for the limitation of claim 15: "wherein the ground rubber is not subjected to a surface activation treatment." (Final Office Action, p. 4, line 5). As stated, *supra*,

> In rejecting a claim under the first paragraph of 35 U.S.C. 112 for lack of adequate descriptive support, it is incumbent upon the examiner to establish that the originally filed disclosure would not have reasonably conveyed to one having ordinary skill in the art that an appellant had possession of the now claimed subject matter. Adequate description under the first paragraph of 35 U.S.C. 112 does not require literal support for the claimed invention. *Rather it is sufficient if the originally filed disclosure would have conveyed to one having ordinary skill in the art that an appellant had possession of the concept of what is claimed.*

Id. at 1235-36, emphasis added.

Applicant respectfully asserts that one having ordinary skill in the art would have recognized that Applicant had possession of the concept of what is the now claimed subject matter, i.e., crumb rubber not subjected to a surface activation treatment." On page 4, the crumb

rubber utilized in the invention is described as to its source and content. There is no mention of crumb rubber that is surface treated or even that crumb rubber may be surface treated.

Therefore, since one having ordinary skill in the art would recognize that the Applicant had full possession of the concept claimed, i.e., crumb rubber with no surface treatment, reconsideration and withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C § 103(a).

Claim 1-3, 5-6, 11, and 13-17 stand rejected under 53 U.S.C. 103(a) as being unpatentable over EP Patent Application 0 102 844 of Polysar Limited in view of U.S. Patent No. 4,064,922 of Farber, *et al* and U.S. Patent No. 3,860,539 of Miyazato.

{The Examiner also mentions [on page 6 of the Final Office Action, lines 6-12] U.S. Patent 3,769,122 of Coddington et al as applied to the cement and method claim 16}.

Before specifically responding to the rejections made above by the Examiner under 103(a), the applicant would like to point out some features of his claimed invention, as now amended.

The applicant has amended claim 1 to recite that the "puncture sealing composition" is non-aqueous. This is not new matter. It is clear from the specification as filed that the composition does not use an aqueous Emulsion or does not add Water to the composition.

Claim 1 has also been amended to recites the proper amounts of the "low molecular weight liquid rubber" and the "high molecular weight solid elastomer". As mentioned above, the Examiner stated that the applicant has support for the recited amounts. However, applicant further points out that the "liquid rubber" is used in a minor proportion (less than 50% by weight), and the "solid elastomer" is used in a major proportion (greater than 50% by weight), both based on the combined weights of the two components.

Lastly, applicant clearly shows in the Example that the use of the Ground Rubber in the sealant composition results in better air retention when the tire is subjected to a puncture. The benefit of using the ground rubber in the sealant composition is demonstrated.

As to the specific rejections made by the Examiner under 103(a):

EP844 discloses a tire having puncture-sealing characteristics, the tire comprising as the inner liner an irradiated laminate (EP844, p.1, lines 2-5). EP844 discloses that the essence of its invention is this laminate,

> the inner layer of which is a puncture-sealing laminate, the inner layer of which is a polymer degraded by irradiation, such that when both the inner liner is penetrated by a puncture means and when the puncturing means is removed, sealing of the inner liner will occur at the point of puncture, such sealing being by the degraded polymer of the inner liner of the laminate.

EP844, p. 5, lines 15-25.

Applicant's invention does not disclose or teach the use of an irradiated laminate.

In rejecting the applicant's claims, the Examiner states what the primary reference EP844 does not disclose (Final Office Action, pg. 5, lines 1-6). So, the Examiner combines the other cited references to find the missing disclosure.

As to the Farber reference ('922), the patent discloses a puncture sealing composition in which the low molecular weight elastomer is present in a major amount of the composition, more than 50% by weight ('922, col. 4, lines14-19). The '922 reference does not disclose or teach the use of Ground Rubber.

Applicant claims a tire having, *inter alia*, a puncture-sealant composition covering an interior surface of the tire, where the puncture sealing composition comprises a minor amount of the low molecular weight liquid rubber, and the use of greater than 0 to 5% by weight of Ground Rubber (claim 1).

As to the Miyazato reference ('539), the patent discloses a tire lining agent which is comprised of an aqueous dispersion having (1) an adhesive "consisting essentially of" an aqueous emulsion of specifically recited polymers, which polymers are chosen to be adhesive to rubber and dispersible in water, where 100 parts of the emulsion contains 18 to 54 parts of water, and (2) particulate solid rubber particles which are intimately dispersed in the aqueous dispersion (see Summary of the Invention, Para. 1). The rubber particles are used only in an aqueous dispersion having a very low viscosity (230-1350 cps at 21 degrees C.). The reference teaches that, in using the agent to line a tire, a portion of the water remains in the lining agent inside of the tire (see Detailed Description, Para. 9).

In applicant's composition, the ground rubber is mixed together with the liquid rubber and the solid elastomer. The claimed invention does not disperse the ground rubber in an aqueous dispersion; and the invention does not use the rubbers or elastomers in an aqueous emulsion, and does not have water in the composition.

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

Applicant respectfully asserts that a *prima facie* case of obviousness has not been presented for the claims, as amended. Specifically, EP844 does not disclose the amounts of the liquid rubber and the solid elastomer that are used, and does not disclose the use of ground rubber. Farber '922 teaches away from the claims being examined because Farber teaches that the high molecular weight elastomer must be in a minor amount of the sealant. Also, '922 does not teach the use of ground rubber in the composition. Lastly, although Miyazato '539 shows the use of a particulate rubber, '539 is directed to and discloses aqueous dispersions wherein the elastomer is present as an aqueous emulsion, and the particulate rubber is dispersed therein.

As to Coddington '122, the reference discloses a liner of a halo/butyl rubber dissolved in an organic solvent to form a cement. Specific amounts of a liquid rubber and a solid elastomer are not disclosed, and the use of ground rubber is not disclosed. So, '122 does not add to the cited references to supply the missing disclosure.

Therefore, because the prior art references fail to disclose each and every limitation of Applicant's amended independent claims 1 and 16, Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claims 1 and 16 and all claims depending therefrom, either directly or indirectly.

Applicant respectfully asserts that all claims are now in condition for allowance and requests the timely issuance of the Notice of Allowance. If the Examiner believes that a telephone interview would expedite the examination of this pending patent application, the Examiner is invited to telephone the below signed attorney at the convenience of the Examiner. In the event there are any fees or charges associated with the filing of these documents, the Commissioner is authorized to charge Deposit Account No. 13-3085 for any necessary amount.

Respectfully submitted,

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